We claim:

CLAIMS

1. Substantially pure connective tissue growth factor (CTGF) polypeptide or functional fragments thereof.

2. The CTGF polypeptide of claim 1, wherein the CTGF is mitogenic and chemotactic.

3. The CTGF polypeptide of claim 1, wherein the CTGF is mitogenic and chemotactic for connective tissue cells.

4. The CTGF polypeptide of claim 1, wherein the polypeptide is characterized by:

   (a) existing as a monomer of approximately 36-38 kD molecular weight; and

   (b) binding to a PDGF receptor.

5. A polynucleotide sequence encoding CTGF polypeptide or a functional fragment thereof.

6. The polynucleotide sequence of claim 5, wherein the polynucleotide is DNA.

7. The polynucleotide of claim 6, wherein the DNA is cDNA.

8. The polynucleotide of claim 5 wherein the sequence includes all sequences which are degenerate as a result of the genetic code.

9. Biologically functional vectors containing the DNA sequence of claim 6.

10. The vector of claim 8, wherein the vector is a plasmid or a viral vector.

11. A host cell stably transformed or transfected with a ~~DNA~~ vector of claim 8.

12. The host cell of claim 11, wherein the host is a prokaryote.

13. The host cell of claim 11, wherein the host is a eukaryote.

14. Antibodies which are specifically reactive with CTGF or fragments thereof.

15. The antibodies of claim 14, wherein the antibodies are polyclonal.

16. The antibodies of claim 14, wherein the antibodies are monoclonal.

17. A method for accelerating wound healing in a subject comprising contacting the site of the wound with an effective amount of a composition which contains purified CTGF.

18. The method of claim 17, wherein the composition further contains an agent which stimulates the production of CTGF.

19. The method of claim 18, wherein the agent is transforming growth factor beta.

20. A method of diagnosing pathological states in a subject suspected of having pathology characterized by a cell proliferative disorder, comprising the steps of:

(a) obtaining a sample suspected of containing CTGF from the subject;

(b) determining the level of CTGF in the sample; and

(c) comparing the level of CTGF in the sample to the level of CTGF in a normal standard sample.

21. The method of claim 20, wherein the pathology is selected from the group consisting of fibrotic disease and atherosclerosis.

22. A method for ameliorating diseases characterized by a cell proliferative disorder, which comprises treating the site of the disease with a CTGF reactive agent.

23. The method of claim 22, wherein the cell proliferative disorder is due to overgrowth of cells.

24. The method of claim 22, wherein the cell proliferative disorder is due to overgrowth of connective tissue cells.

25. The method of claim 22, wherein the CTGF reactive agent is an antagonist of CTGF.

26. The method of claim 25, wherein the antagonist is the antibody of claim 14.

27. The method of claim 22, wherein the cell proliferative disorder is due to an undergrowth of cells.

28. The method of claim 22, wherein the CTGF reactive agent is transforming growth factor beta.

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